

ABSTRACT OF THE DISCLOSURE

Apparatus, systems and methods are provided for transmission of optical signals through a wellbore whereby optic fibers are protected from exposure to harsh downhole fluids and conditions. The system comprises a power cable assembly running down hole from the surface and comprising both electrical leads and at least one fiber-optic lead, an electric submersible motor apparatus having optic fibers and optic fiber leads as an integral part of the motor and internal to the motor casing, and a connection(s) between the optic fibers internal to the motor casing and downhole sensors and other equipment requiring optical communication.